Reference Preamplifier
Owners Manual

Introduction

Congratulations and thank you for purchasing the Music First Audio Reference Preamplifier.

This original device controls up to six sources and attenuates level. It sits between stereo source devices such as CD players, turntables etc. and power amplifiers. It also offers additional isolated outputs for recording and connection of additional amplification. A rotary switch on the front panel selects inputs and the level is controlled by another rotary switch.

Music First Audio introduced the Classic Preamplifier in 2003 and it went on to receive widespread critical acclaim. Glowing reviews and many awards followed and it became the standard by which others are judged.

In the years since we designed our original preamplifier, we experimented with many different approaches and techniques. We discovered that we could improve on our original design, but only by ignoring the usual manufacturing constraints of time and expense. The Reference Preamplifier is a true ‘cost no object’ design. We have used only the finest possible components and each Reference Preamplifier is built by hand in our Hastings, East Sussex workshop over a five week period.

The Reference Preamplifier takes the multiple-award winning performance of our original product to another level and offers unparalleled sonic performance together with an extraordinary range of features.

- 46 position level control from -60dB to +6dB in 1.5dB steps
- Six inputs (two balanced and four unbalanced)
- Six outputs (two main balanced, two main unbalanced, auxiliary output and tape output)
- Three position output ground selector switch
- Seamless +6dB switching offers gain for lower powered sources
- Remote control of level via a stepper motor (there are no active electronics in the signal path)
- All internal components are mounted on a thick, heavy, dual material laminate block and the entire preamplifier rests on custom designed feet for maximum stability and vibration immunity
- Various custom options are available, please enquire

In order to get the most out of your Reference Preamplifier, please take a little time to read through this user guide.

Unpacking and Installation

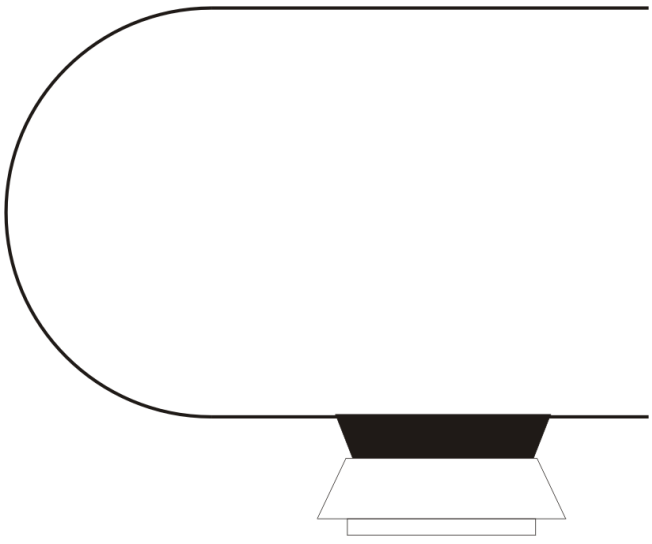
The Reference Preamplifier comes supplied in a professional flight case. This ensures that your preamplifier arrives with you in the same condition as it left us. Please keep this flight case in case you ever need to return the unit to us (for modification for example).

Under the preamplifier you will find a removable panel in the bottom of the flight case. Under this panel you will find the preamplifier accessories.

The case contains:

1 x Music First Audio Reference Preamplifier
4 x Reference Preamplifier feet
1 x Universal remote Control handset
1 x Universal Power Supply Unit
1 x Mains Power Lead (connect this to the Power Supply)
1 x User Manual
1 x Certificate of Authenticity

The Reference Preamplifier feet are not attached to the unit itself. Instead they should be placed underneath the preamplifier with the rubber side up, two feet at the front and two at the rear:



Connection

The rear panel houses all input and output connections. Inputs are situated to the right and outputs to the left (when viewed from the rear). The inputs should be connected to the outputs of source devices (CD player, cassette player etc.) at line level. The phono/ RCA inputs are for connection to unbalanced equipment, while the XLR inputs are for connection to balanced equipment.

As a general “rule of thumb” if the output of a piece of source equipment is on XLRs then it is balanced and if it is on phonos/ RCAs, then it is unbalanced. This is not always the case, but should give a good starting point.

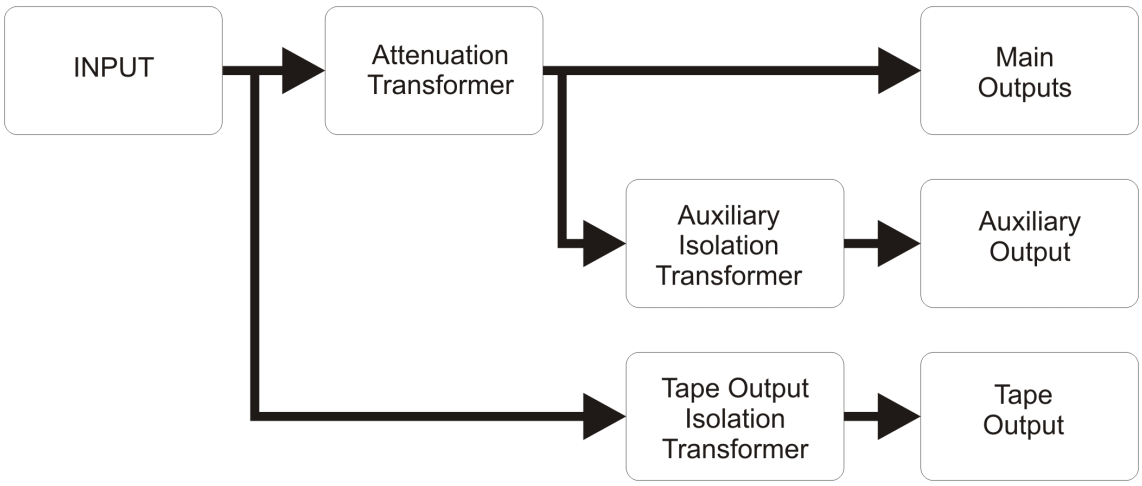
The outputs of the unit are located on the left hand side of the back panel. The main XLR outputs are balanced and the phono/ RCA outputs are unbalanced. Because the transformers convert balanced and unbalanced signals, these outputs are always the same, regardless of which input type is used.

The Reference Preamplifier also offers additional transformer isolated outputs. The Auxiliary output works in the same way as the main outputs but is isolated from the main outputs via high quality isolation transformer. This allows, for example, mixed outputs (balanced and unbalanced) to be accommodated.

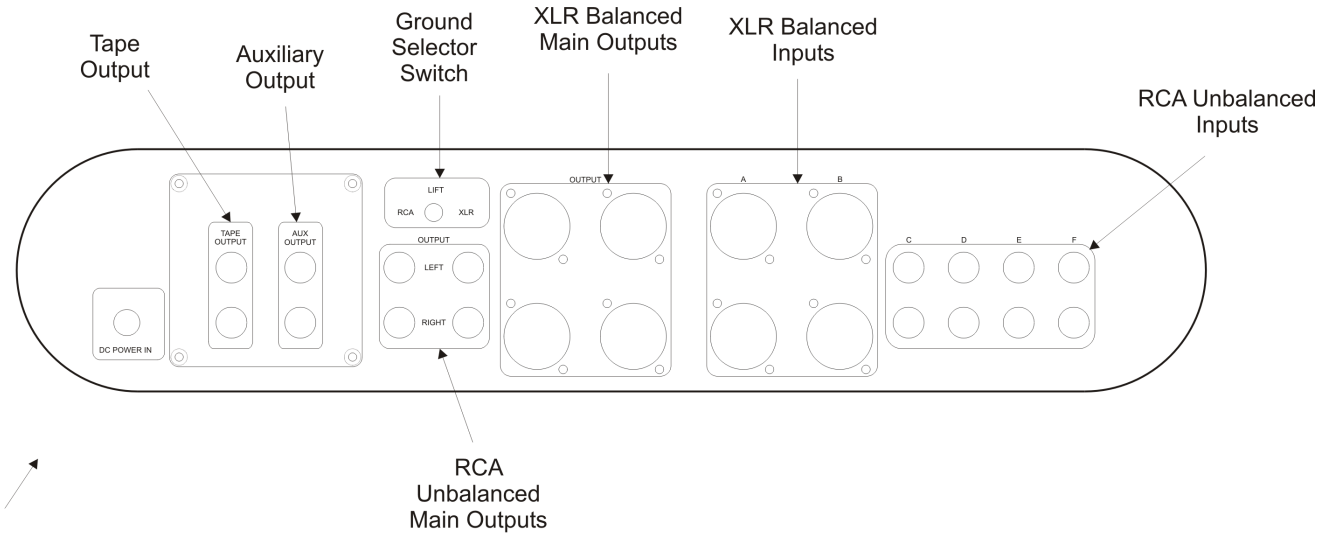
The Tape Output is a source direct output which bypasses the attenuation transformers so is always at the same level as the input, irrespective of the setting of the front panel level control.

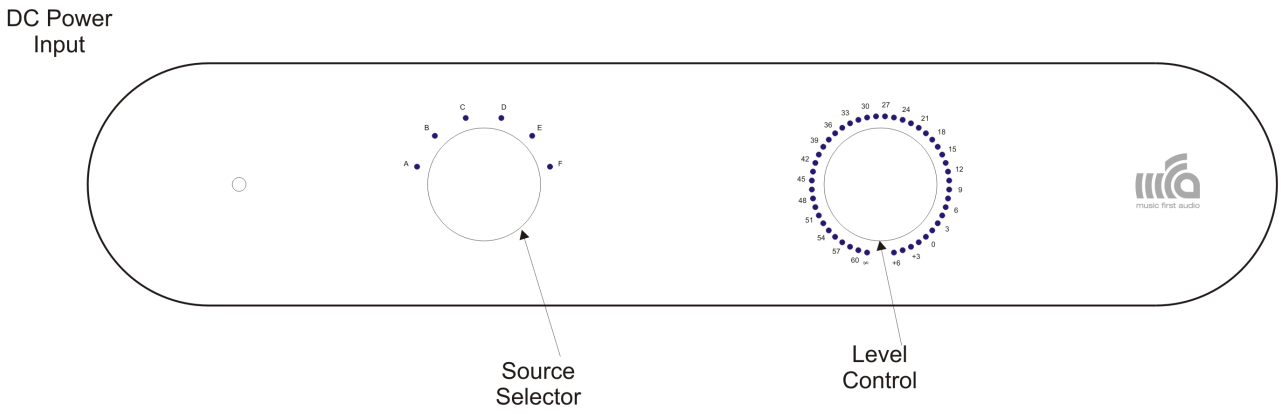
Only ever connect one **main output** type (balanced OR unbalanced) at a time, use of both **main output** types at once is not recommended and may cause damage to any equipment connected to the Reference Preamplifier. This does not apply to the additional Auxiliary and Tape outputs.

If you are in any doubt about connections, please contact us via email info@mfaudio.co.uk and we’ll be very happy to help.



Connection





- **RCA Unbalanced inputs:** Inputs C- F are unbalanced RCA inputs
- **XLR Balanced inputs:** Inputs A and B are XLR Balanced inputs
- **XLR Balanced Main Outputs:** Dual parallel XLR balanced outputs
- **RCA Unbalanced Main Outputs:** Dual RCA unbalanced outputs
- **Auxiliary RCA output:** Transformer isolated auxiliary output. This output is post level control and transformer isolated
- **Tape output:** Transformer isolated source direct output.
- **DC Power Input:** The Reference Preamplifier requires a 12V DC, 2.3A (centre positive) power supply for the remote operation. This powers the remote control board and the stepper motor used to turn the level switch. There are no active electronics in the signal path. The preamplifier will function without power but will not be remote controllable.

WARNING - Connection of faulty equipment to the unit will cause malfunction, **ensure all devices connected are in good working order.**

Remote Operation

The Reference Preamplifier offers remote control of level. The remote control uses a very high quality stepper motor to turn the level switch. The Reference Preamplifier is supplied with a ‘Universal’ remote control handset. This handset can be used to control other items, please refer to the included guide.

The Reference Preamplifier is supplied with a Universal Power supply. This power supply accepts mains voltage from 100V to 230V so is suitable for use in most countries. The output of this power supply is 12V DC at 2.4A with a centre positive pin.

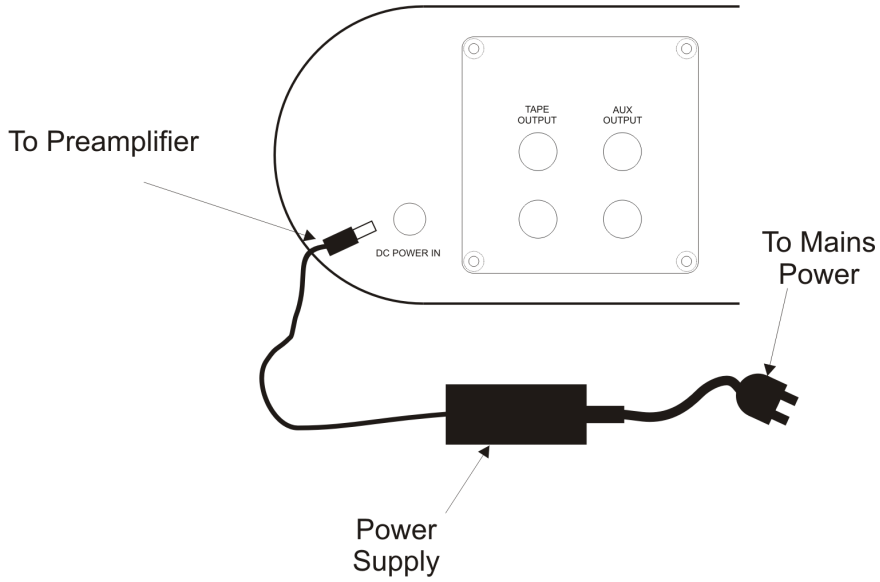
To operate the Reference Preamplifier using the remote control:

1. Connect the supplied universal power supply to the preamplifier, plug it into the mains power and switch on the power.

2. Select the ‘AUDIO’ function on the universal remote handset.

3. Use the Volume Up and Volume Down buttons on the handset to turn the level up and down.

4. Always disconnect the power supply from the mains when you have finished using the preamplifier



The Ground Selector Switch

Once equipment has been connected as described, it is necessary to select grounding options with the rear-mounted switch. This three position switch controls whether the **main output** ground is floating (unconnected) or connected to the internal ground reference (and to input ground). In the centre position the output ground is floated. In the RCA position, the **main RCA outputs** are grounded and in the XLR position, the **main XLR outputs** are grounded.

The setting of this switch is entirely dependent on the rest of your system. A simple procedure will deduce how it should be set.

1. Ensure your power amplifier is turned off and connect it's input to the output of the Reference pre amplifier
2. Connect all your source equipment as described above and switch it on (do not play any music at this point).
3. Set the Ground Selector Switch to the centre (Lift) position and the Reference pre amplifier level control to ∞ (minimum)
4. Turn on your power amplifier and turn up the volume control (if there is one) a little.
5. Gradually increase the level control on the Reference Preamplifier. You should here nothing (a little "hiss" from source devices is normal). If you here a loud "buzzing" or "humming" sound, turn down all level controls and switch your power amplifier off.
6. Set the grounding switch to RCA or XLR (depending on the type of main output you are using)
7. Repeat steps 4 and 5. The buzzing should now have stopped.

You might find that the switch requires a different setting for each piece of source equipment. It is worth trying the above procedure for each separate source.

Please note:

The input grounds are connected to the internal reference via resisters (this is to drain static voltage on source equipment ground which prevents "clicks" and "pops" when switching sources). Input F is hard grounded (no resister); this input is best suited to sources that are particularly noisy (e.g. digital television receivers etc.).

The Auxiliary output and Tape output are not affected by the Ground Selector Switch.

Operation

1. Before use ensure the level control is set to ∞ (minimum level)
2. Switch on the source devices (CD player, tuner, turntable etc.)
3. Switch on the amplifier and set the amplifier volume control (if there is one) to the maximum necessary listening level.
4. Select the source device.
5. Set the Reference Preamplifier level control to the desired listening level

Please note:

- If the source is to be changed always return the level control to ∞ (minimum level) before changing the source to avoid damage to loudspeakers and amplifiers

- Always turn amplifier levels down and power off before powering down sources, again to avoid damage.

Burn in

To obtain the very best results from the Music First Audio Reference Preamplifier a period of “burn in” is necessary. Simply put, this means you will find the sound of the unit improving over the first 100 hours or so of use. If possible, we recommend the following procedure:

1. Connect source and amplifier as described
2. Set the level of the Music First Audio Reference Preamplifier to 0 (maximum). This ensures the transformers entire winding will be “burnt in”
3. Play music through the Music First Audio Reference Preamplifier for 100 hours (using the amplifiers volume control to set level)

If you need further help or advice you can e-mail us at: info@mfaudio.co.uk

Maintenance

The unit should be cleaned with a soft dry cloth. **NEVER** use abrasive cloths or cleaning solution. For stubborn stains, slightly dampen the cloth with water.

Contacts and connectors can be cleaned with proprietary contact cleaners (Servisol, DeoxIT etc.) although the use of switch lubricants is not recommended.

Specifications

Inputs	4 x Stereo unbalanced 2 x Stereo balanced
Outputs	2 x Stereo unbalanced main outputs 2 x Stereo balanced main outputs 1 x Stereo Auxiliary output (transformer isolated) 1 x Source Direct Tape Output (transformer isolated)
Controls	Level (46 position rotary switch) Source (6 position rotary switch) Grounding (3 position toggle switch)
Z out:	
0db volume setting	Source Impedance + 600 R (1k Source=1600 R)
+6db volume setting	Source Impedance x 4 + 900 R (1k Source = 4900 R)
-20db volume setting	Source Impedance / 100 + 33 R (1k Source = 43 R)

Troubleshooting

Symptom	Problem	Solution
No Sound	No source playing/ selected	Ensure the source is playing Ensure the correct source is selected
	Pre amplifier level too low/ off	Turn up the level control on the Reference Preamplifier
	Amplifier not on/ level too low	Ensure the amplifier is on and any volume control is up
Loud “buzzing or “humming” sound	Ground selector incorrectly set	Check that the grounding switch is correctly set (see “The grounding switch”)
Remote Control not working	Power supply not connected	Check to ensure that the power supply is properly connected
	Audio Function not selected	Ensure that the remote handset is set to the correct function by pressing the ‘Audio’ button at the top of the handset
	Battery low	Replace handset battery
	Out of range	Try moving a little closer to the main unit

For any further advice, please contact us at **info@mfaudio.co.uk**

WARNING

- In no event shall the manufacturer be liable for any damage, direct, indirect or consequential of any type or any expenses or losses resulting from the use of this product.
- Contains no user serviceable parts, refer servicing to qualified personnel only.
- Do not expose the unit to moisture, excessive heat or cold.
- The contents of this manual are correct at the time of going to press. The manufacturer reserves the right to change the specification and features without prior notice.